

ABSTRACT OF THE DISCLOSURE

A stretchable electronic circuit or electronic device and a polymer-based process to produce a circuit or electronic device containing a stretchable conducting circuit. The stretchable electronic apparatus has a central longitudinal axis and the apparatus is stretchable in a longitudinal direction generally aligned with the central longitudinal axis. The apparatus comprises a stretchable polymer body and at least one circuit line operatively connected to the stretchable polymer body. The circuit line extends in the longitudinal direction and has a longitudinal component that extends in the longitudinal direction and has an offset component that is at an angle to the longitudinal direction. The longitudinal component and the offset component allow the apparatus to stretch in the longitudinal direction while maintaining the integrity of the circuit line.